WHAT IS CLAIMED IS:

1. A manufacturing method of a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistors connected in series between reference voltages;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing all forming parts of the resistors configuring the resistor string within a laser irradiation area; and

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with a same laser shot,

wherein each of the resistors is a thin film element crystallized by linear laser irradiation.

2. The manufacturing method of a D/A converter circuit according to claim 1, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel with a scan direction of the linear laser irradiation.

3. The manufacturing method of a D/A converter circuit according to claim 1, wherein each forming part of the resistors is all formed to have a same shape.

4. A manufacturing method of a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

forming a plurality of resistors which are connected in series to configure each of the resistor groups;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing forming parts of the series-connected resistors of each resistor group within each different laser irradiation area;

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with a same laser shot; and

disposing auxiliary resistors so as to be connected in parallel with each resistor group,

wherein each of the resistors is a thin film element crystallized by linear laser irradiation;

wherein each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

5. The manufacturing method of a D/A converter circuit according to claim 4, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation;

all forming parts of the auxiliary resistors are disposed within a laser irradiation area; and

all the forming parts of the auxiliary resistors which are disposed within the laser irradiation area are crystallized with a same laser shot.

6. The manufacturing method of a D/A converter circuit according to claim 4, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel with a scan direction of the linear laser irradiation.

7. The manufacturing method of a D/A converter circuit according to claim 4, wherein each forming part of the resistors is all formed to have a same shape.

8. A manufacturing method of a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistors connected in series between reference voltages;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing all forming parts of the resistors configuring the resistor string within a laser irradiation area; and

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with one laser shot,

wherein each of the resistors is a thin film element crystallized by linear laser irradiation.

9. The manufacturing method of a D/A converter circuit according to claim 8, wherein each forming part of the resistors is disposed to be parallel with each other.

10. The manufacturing method of a D/A converter circuit according to claim 8, wherein each forming part of the resistors is all formed to have a same shape.

11. A manufacturing method of a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

forming a plurality of resistors which are connected in series to configure each of the resistor groups;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing forming parts of the series-connected resistors of each resistor group within each different laser irradiation area;

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with one laser shot;

disposing auxiliary resistors so as to be connected in parallel with each resistor group,

wherein each of the resistors is a thin film element crystallized by linear laser irradiation;

wherein each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

12. The manufacturing method of a D/A converter circuit according to claim 11, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation;

all forming parts of the auxiliary resistors are disposed within a laser irradiation area; and

all the forming parts of the auxiliary resistors which are disposed within the laser irradiation area are crystallized with one laser shot.

13. The manufacturing method of a D/A converter circuit according to claim 11, wherein

each forming part of the resistors is disposed to be parallel with each other.

14. The manufacturing method of a D/A converter circuit according to claim 11, wherein each forming part of the resistors is all formed to have a same shape.

15. A manufacturing method of a semiconductor device incorporating a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistors connected in series between reference voltages;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing all forming parts of the resistors configuring the resistor string within a laser irradiation area; and

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with a same laser shot.

wherein each of the resistors is a thin film element crystallized by linear laser irradiation;

16. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 15, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel with a scan direction of the linear laser irradiation.

17. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 15, wherein each forming part of the resistors is all formed to have a same shape.

18. A manufacturing method of a semiconductor device incorporating a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

forming a plurality of resistors so as to be connected in series to configure each of the

resistor groups;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing forming parts of the series-connected resistors of each resistor group within each different laser irradiation area;

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with a same laser shot; and

disposing auxiliary resistors so as to be connected in parallel with each resistor group,

wherein each of the resistors is a thin film element crystallized by linear laser irradiation;

wherein each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

19. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 18, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation;

all forming parts of the auxiliary resistors are disposed within a laser irradiation area; and

all the forming parts of the auxiliary resistors which are disposed within the laser irradiation area are crystallized with a same laser shot.

20. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 18, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel with a scan direction of the linear laser irradiation.

21. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 18, wherein each forming part of the resistors is all formed to have a same shape.

22. A manufacturing method of a semiconductor device incorporating a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistors connected in series between reference voltages;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing all forming parts of the resistors configuring the resistor string within a laser irradiation area; and

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with one laser shot.

wherein each of the resistors is a thin film element crystallized by linear laser irradiation;

23. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 22, wherein each forming part of the resistors is disposed to be parallel with each other.

24. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 22, wherein each forming part of the resistors is all formed to have a same shape.

25. A manufacturing method of a semiconductor device incorporating a D/A converter circuit, comprising the steps of:

forming a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

forming a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors;

disposing forming parts of the series-connected resistors of each resistor group within each different laser irradiation area;

crystallizing all the forming parts of the resistors which are disposed within the laser irradiation area with one laser shot; and

disposing auxiliary resistors so as to be connected in parallel with each resistor group,

wherein each of the resistors is a thin film element crystallized by linear laser irradiation;

wherein each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

26. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 25, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation;

all forming parts of the auxiliary resistors are disposed within a laser irradiation area; and

all the forming parts of the auxiliary resistors which are disposed within the laser irradiation area are crystallized with one laser shot.

27. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 25, wherein each forming part of the resistors is disposed to be parallel with each other.

28. The manufacturing method of a semiconductor device incorporating a D/A converter circuit according to claim 25, wherein each forming part of the resistors is all formed to have a same shape.

29. A D/A converter circuit comprising:

a resistor string which includes a plurality of resistors connected in series between reference voltages; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by linear laser irradiation;

all forming parts of the resistors configuring the resistor string are disposed within a laser irradiation area; and

all the forming parts of the resistors which are disposed within the laser irradiation area are irradiated with a same laser shot.

30. The D/A converter circuit according to claim 29, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel to a scan direction of the linear laser irradiation.

31. The D/A converter circuit according to claim 29, wherein each forming part of the resistors has a same shape.

32. The D/A converter circuit according to claim 29, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

33. A D/A converter circuit comprising:

a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

a plurality of resistors which are connected in series to configure each of the resistor groups; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

forming parts of the series-connected resistors of each resistor group are disposed within each different laser irradiation area;

all the forming parts of the resistors which are disposed within the laser irradiation area are crystallized with a same laser shot; and

auxiliary resistors are disposed so as to be connected in parallel with each resistor group; and

each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

34. The D/A converter circuit according to claim 33, wherein each of the auxiliary

resistors is a thin film element crystallized by laser irradiation, all the forming parts of the auxiliary resistors are disposed within a laser irradiation area, and all the forming parts of the auxiliary resistors, which are disposed within the laser irradiation area, are crystallized with a same laser shot.

35. The D/A converter circuit according to claim 33, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel to a scan direction of the linear laser irradiation.

36. The D/A converter circuit according to claim 33, wherein each forming part of the resistors has a same shape.

37. The D/A converter circuit according to claim 33, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

38. A D/A converter circuit comprising:

a resistor string which includes a plurality of resistors connected in series between reference voltages; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by linear laser irradiation;

all forming parts of the resistors configuring the resistor string are disposed within a laser irradiation area; and

all the forming parts of the resistors which are disposed within the laser irradiation area are irradiated with one laser shot.

39. The D/A converter circuit according to claim 38, wherein each forming part of the resistors is disposed to be parallel with each other.

40. The D/A converter circuit according to claim 38, wherein each forming part of the resistors has a same shape.

41. The D/A converter circuit according to claim 38, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

42. A D/A converter circuit comprising:

a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

a plurality of resistors which are connected in series to configure each of the resistor groups; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by linear laser irradiation;

forming parts of the series-connected resistors of each resistor group are disposed within each different laser irradiation area;

all the forming parts of the resistors which are disposed within the laser irradiation area are crystallized with one laser shot;

auxiliary resistors are disposed so as to be connected in parallel with each resistor group; and

each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

43. The D/A converter circuit according to claim 42, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation; all the forming parts of the resistors are disposed within the laser irradiation area; and all the forming parts which are disposed within the laser irradiation area are crystallized with one laser

shot.

44. The D/A converter circuit according to claim 42, wherein each forming part of the resistors is disposed to be parallel with each other.

45. The D/A converter circuit according to claim 42, wherein each forming part of the resistors has a same shape.

46. The D/A converter circuit according to claim 42, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

47. A semiconductor device incorporating a D/A converter circuit, comprising:

a resistor string which includes a plurality of resistors connected in series between reference voltages; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by linear laser irradiation;

all forming parts of the resistors configuring the resistor string are disposed within a laser irradiation area; and

all the forming parts of the resistors which are disposed within the laser irradiation area are crystallized with a same laser shot.

48. The semiconductor device incorporating a D/A converter circuit according to claim 47, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel with a scan direction of the linear laser irradiation.

49. The semiconductor device incorporating a D/A converter circuit according to claim 47, wherein each forming part of the resistors has a same shape.

50. The semiconductor device incorporating a D/A converter circuit according to claim 47, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

51. A semiconductor device incorporating a D/A converter circuit, comprising:

a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

a plurality of resistors which are connected in series to configure each of the resistor groups; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by linear laser irradiation;

forming parts of the series-connected resistors of each resistor group are disposed within each different laser irradiation area;

all the forming parts of the resistors which are disposed within the laser irradiation area are crystallized with one laser shot;

auxiliary resistors are disposed so as to be connected in parallel with each resistor group; and

each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

52. The semiconductor device incorporating a D/A converter circuit according to claim 51, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation;

all forming parts of the auxiliary resistors are disposed within a laser irradiation area; and

all the forming parts of the auxiliary resistors which are disposed within the laser irradiation area are crystallized with a same laser shot.

53. The semiconductor device incorporating a D/A converter circuit according to claim 51, wherein each forming part of the resistors is disposed to be parallel with each other, and also to be parallel with a scan direction of the linear laser irradiation.

54. The semiconductor device incorporating a D/A converter circuit according to claim 51, wherein each forming part of the resistors has a same shape.

55. The semiconductor device incorporating a D/A converter circuit according to claim 51, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

56. A semiconductor device incorporating a D/A converter circuit, comprising:

a resistor string which includes a plurality of resistors connected in series between reference voltages; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by linear laser irradiation;

all forming parts of the resistors configuring the resistor string are disposed within a laser irradiation area; and

all the forming parts of the resistors which are disposed within the laser irradiation area are crystallized with one laser shot.

57. The semiconductor device incorporating a D/A converter circuit according to claim 56, wherein each forming part of the resistors is parallel with each other.

58. The semiconductor device incorporating a D/A converter circuit according to claim 56, wherein each forming part of the resistors has a same shape.

59. The semiconductor device incorporating a D/A converter circuit according to claim

56, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

60. A semiconductor device incorporating a D/A converter circuit, comprising:

a resistor string which includes a plurality of resistor groups connected in series between reference voltages;

a plurality of resistors which are connected in series to configure each of the resistor groups; and

a plurality of switching elements, each of the plurality of switching elements being connected with a connection node of corresponding one of the plurality of resistors,

wherein:

each of the resistors is a thin film element crystallized by laser irradiation;

forming parts of the series-connected resistors of each resistor group are disposed within each different laser irradiation area;

all the forming parts of the resistors which are disposed within the laser irradiation area are crystallized with one laser shot;

auxiliary resistors are disposed so as to be connected in parallel with each resistor group; and

each of the auxiliary resistors has a same resistance value that is sufficiently smaller than a combined resistance value of the resistor group to which each auxiliary resistor is connected.

61. The semiconductor device incorporating a D/A converter circuit according to claim 60, wherein:

each of the auxiliary resistors is a thin film element crystallized by laser irradiation;

all forming parts of the auxiliary resistors are disposed within a laser irradiation area; and

all the forming parts of the auxiliary resistors which are disposed within the laser irradiation area are crystallized with one laser shot.

62. The semiconductor device incorporating a D/A converter circuit according to claim 60, wherein each forming part of the resistors is parallel with each other.

63. The semiconductor device incorporating a D/A converter circuit according to claim 60, wherein each forming part of the resistors has a same shape.

64. The semiconductor device incorporating a D/A converter circuit according to claim 60, wherein each forming part of the resistors is connected with each other by a metal wiring having a same resistance value as those of the resistors.

65. A D/A converter circuit comprising:

a substrate;

a plurality of resistors including polysilicon formed over the substrate;

a plurality of wirings electrically connecting the plurality of resistors in series; and

a plurality of switching elements, each of which is electrically connected to corresponding one of the plurality of wirings,

wherein:

each carrier flow direction of the plurality of resistors are different from a direction the plurality of resistors are arranged.

66. A D/A converter circuit comprising:

a substrate;

a plurality of resistor groups, each of the plurality of resistor groups including:

a plurality of first resistors including polysilicon formed over the substrate;

a plurality of wirings electrically connecting the plurality of first resistors in series; and

a plurality of switching elements, each of which is electrically connected to corresponding one of the plurality of wirings; and

a plurality of second resistors electrically connected in series with each other, and in parallel with corresponding one of the plurality of resistor groups,

wherein:

each carrier flow direction of the plurality of first resistors are different from a direction

the plurality of resistors are arranged.

67. A D/A converter circuit according to Claim 66, wherein the plurality of second resistors comprising polysilicon formed over the substrate.

68. A D/A converter circuit according to Claim 66, wherein each carrier flow direction of the plurality of second resistors are different from a direction the plurality of resistors are arranged.

69. An electronic apparatus incorporating the semiconductor device of any one of claims 1 to 68.